

ABSTRACT OF THE DISCLOSURE

A closing device for a toilet unit includes a slave member connected to a toilet cover, a motor, and a switching mechanism that mechanically connects or disconnects the motor from the slave member during closing of the cover. When the motor rotates to move the toilet cover from an open position to a partially closed position, the switching mechanism allows the slave member to move in response to rotation of the motor. After the toilet cover reaches the partially closed position, the mechanical link between the slave member and the motor provided by the switching mechanism is released such that the toilet cover falls freely under its own weight to the closed position independent of the motor. Preferably, the device includes a driving member coupled between the motor and the switching mechanism and operable to move the slave member. The motor rotates in the reverse direction to return the driving member to a position corresponding to the open position of the toilet cover such that during opening of the toilet cover by a user, the slave member is mechanically disconnected from the driving member to reduce the amount of force required to open the toilet cover.